

How Digital will Libraries ever be?






Musings on the limits of a popular metaphor

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Le Menu

-  **Apéritif:** Clarify objectives & scope of the paper
-  **Hors d'oeuvre:** Illustrate motivation
-  **Pièce de résistance:** Differing basic elements and concepts (entities, catalogues and pointers, identity)
-  **Dessert:** Differing modes of community organization
-  **Fromage:** Beyond 'Digital Libraries': future choices and potentially bridging concepts

Clarify objectives & scope

Some words on my personal background

-  Union Catalogues
-  Academic E-Publishing
-  VCB as hybrid, campus wide information framework



And on

Library
Catalogues

vs.




WWW
Information
resources



Do these converge, compete, coexist? Much projections and bad library science fiction has been around

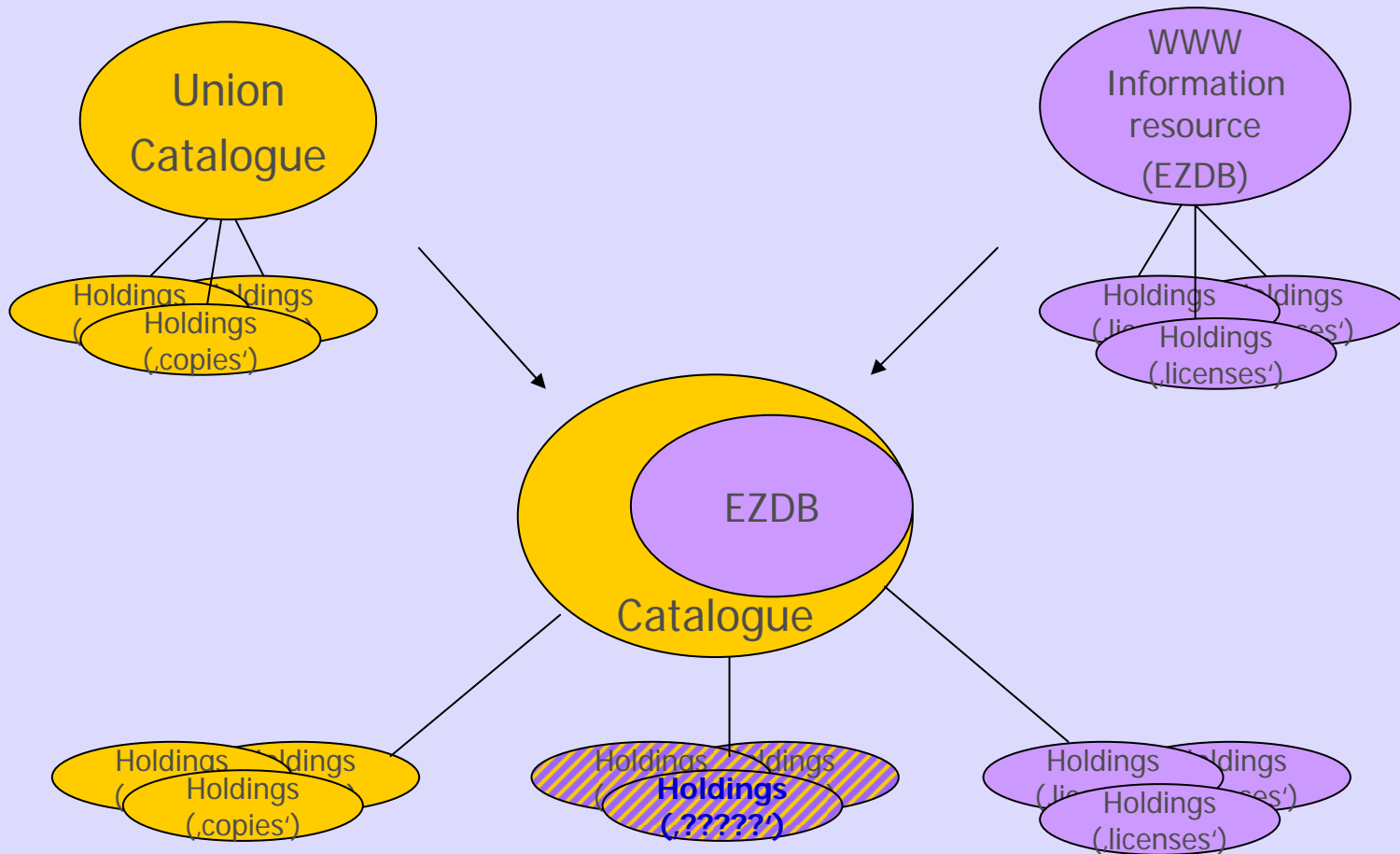


Basic assumptions:

-  We know very little, much less than we sometimes (have to) suggest, especially in political contexts
-  Differences matter, simplifying and pragmatism do not always help!
-  Paper is well aware of its specific audience and thus presented from a librarian perspective

Motivation: Pitfalls of pure pragmatism I

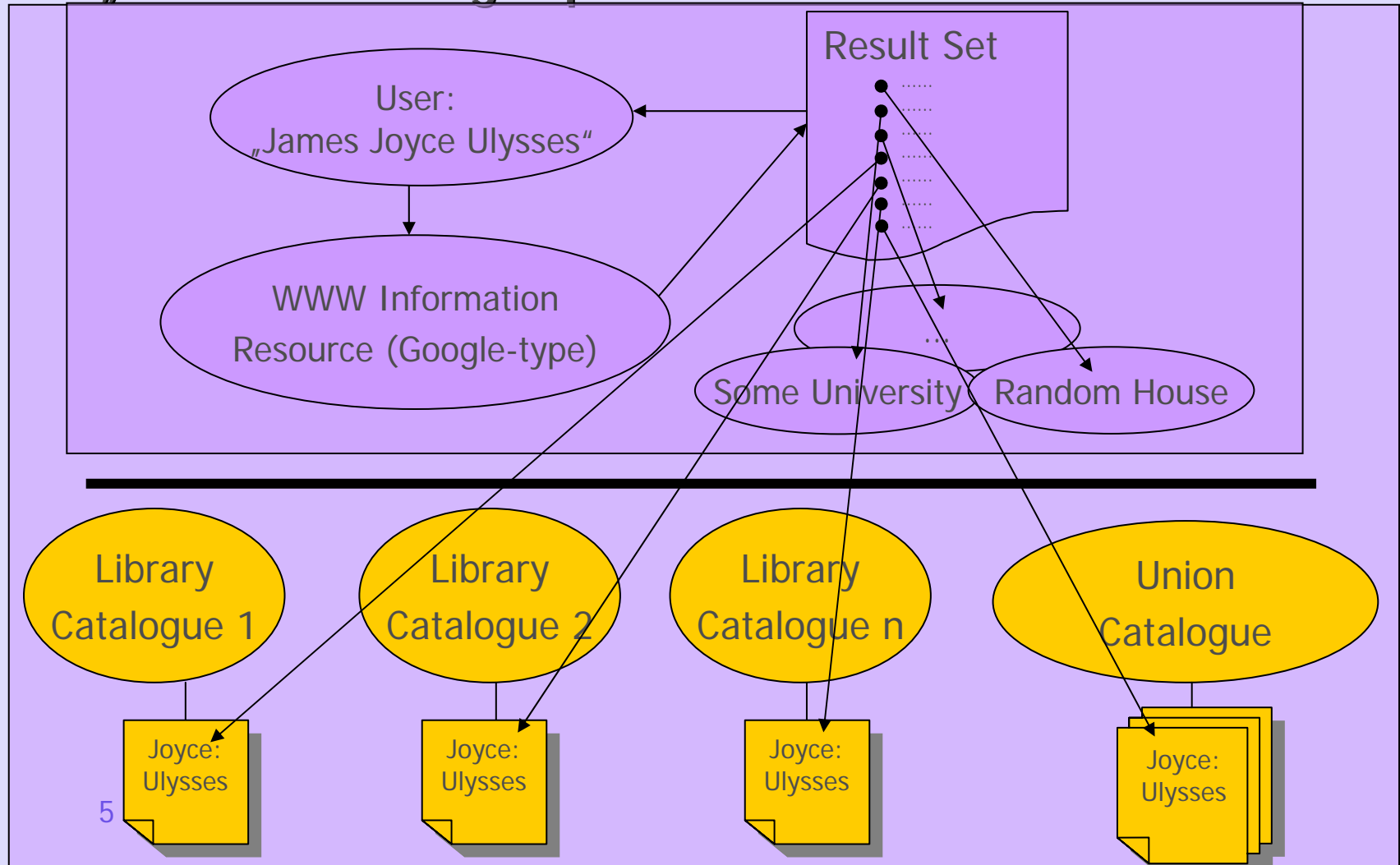
„Make the WWW part of the catalogue“



Motivation: Pitfalls of pure pragmatism II

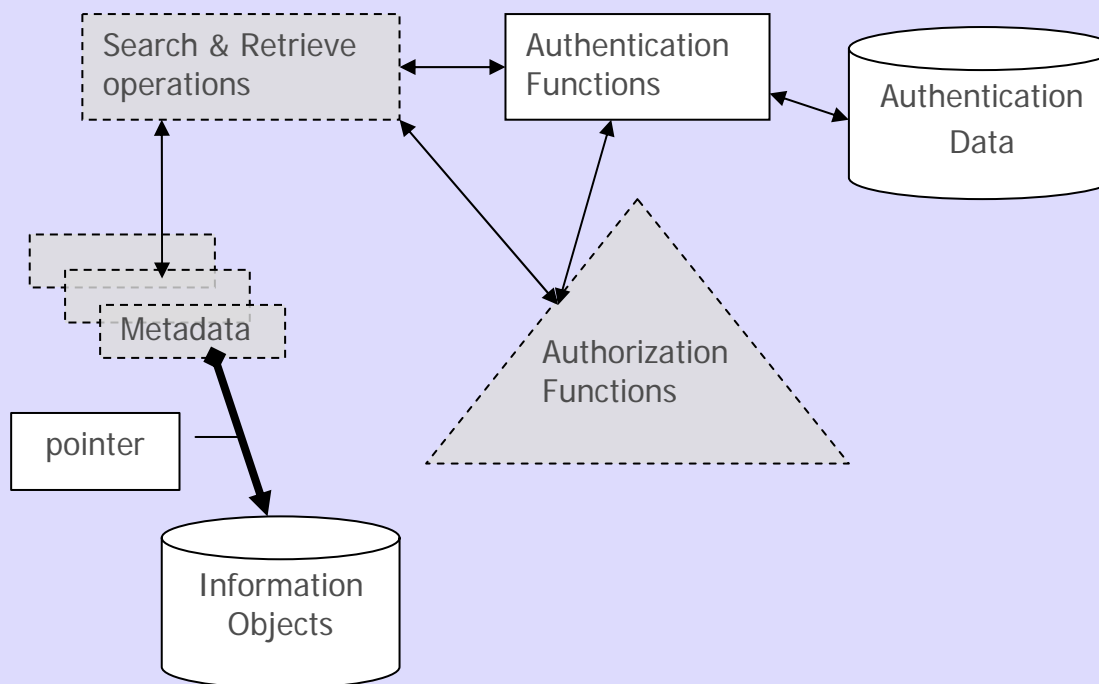


„Make the catalogue part of the WWW“



Differing basic elements and concepts

A bird's perspective:



- Relatively similar: **metadata** (even though catalogers might not like this idea) and **search & retrieval** operations (for 'historical' reasons)
- More fundamentally differing: **information entities**, **pointers**, **authentication**

Basic entities: ‚books‘ vs. electronic information objects

- ‚Digital Libraries‘ and ‚E-Books‘ are profoundly misleading (even though temporarily necessary) metaphors: books/book-like objects differ fundamentally from born digital objects ...
- ... even though seemingly trivial, the distinction is richer in implications than we usually are aware of
- 3 Examples
 - E. g. relation **storage** – **presentation**
 - E.g. **device based** vs. **device independent** access
 - E. g. **pre-** vs. **post-processing/structuring** (think about TOC, indexes and the like!)

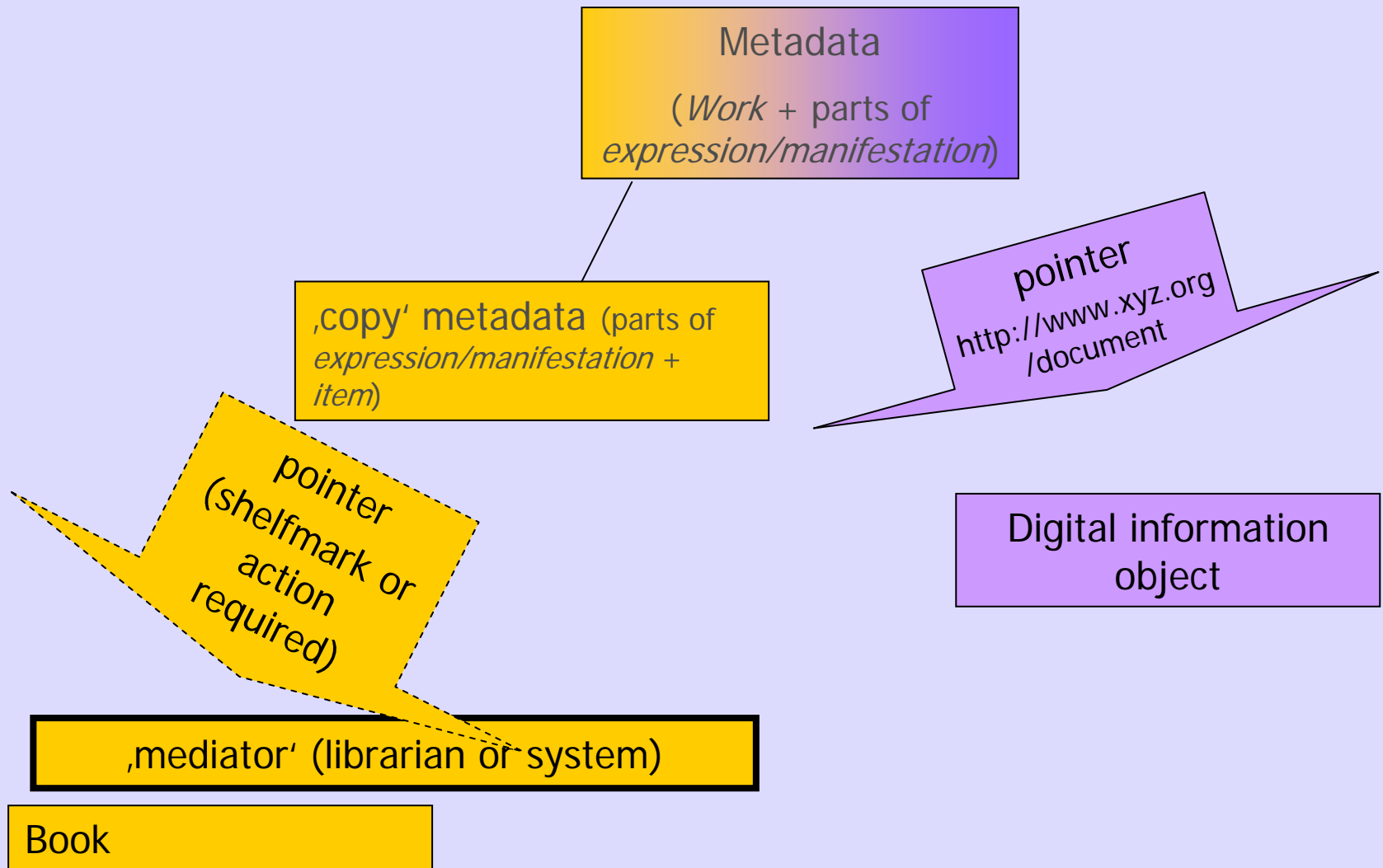
Pointers: the basic mechanism

Metadata
(Descriptive,
identifying,
administrative)

Pointer
(e. g.
shelfmark or
<http://www....>)








Information objects
(Books, electronic files etc.)

Pointers: direct vs. mediated access



Catalogues vs. WWW information services

OPAC (Online Public Access Catalogue)









-  Shelfmarks
-  Human interpretation
-  Objects physically present
-  Mediated access
-  Erroneous pointer: can be corrected intellectually
-  ‚Weak‘ pointer
-  Uncritical component

OPAW (Online Public Access Website)

- URL-Pointer
- Machine interpretation
- Objects not physically present
- Direct access
- Erroneous pointer : Error 404
- ‚Strong‘ pointer
- Critical component

Identity and credentials: authentication and authorization

'Real' Life environments

-  **WHO:** ID-Card/Passport
 -  Photograph/human presence
-  **WHAT OPERATION:**
lending, copying
-  **WHERE:** library location
 -  User location (address)
-  **WHICH CONTEXT:** 'lending',
'reading' – anything else?
-  **LEVEL OF TRUST:** flexible ...
-  **Uncritical** factor

Networked environment

Various IDs / 'passports' (M\$)

'Digital' presence

'access' – for doing what?

IP-Address? DNS??

see above ...

'online', 'subscribed', 'read', 'write',
'annotate'...

binary: none or all

Critical (potentially blocking) factor

The communities and the way they co-operate: The Cathedral and The Bazaar

- Differing modes of **collaboration**
 - Rule based vs. Protocol based
 - Prescriptive vs. Experimental
 - Pre-coordinated vs. Post-coordinated
- Differing modes of **communication**
 - Hierarchical vs. Flat
 - Channeled vs. broadband
 - Aggregation vs. distribution
- Differing modes of **perception / conceptual organization**
 - Identity vs. difference ... stop before definitely entering the taboo zone of philosophical speculations!

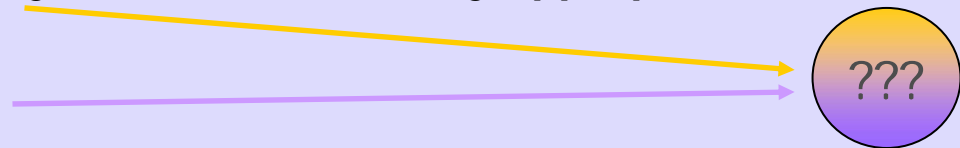
Going beyond 'Digital Libraries': future choices and bridging concepts

Basic assumptions

- Coexistence of librarian and WWW information services will be an issue for quite some time!
- Real choices can actually be made!

4 scenarios:

- Redundancy: reality, but expensive and inefficient
- Competition: reality (alas) but not really appropriate
- Convergence:







Integration



- Choices will mostly be triggered by strong external factors (money, politics, economic interest)
- But some inherent factors can be influenced by the library and WWW communities themselves

Bridging concepts: FRBR and Semantic Web

-  **Semantic Web**: combine librarian semantic granularity, accuracy and authority control and XML-based automated semantic operations
-  **FRBR**: Render librarian and internet data structures and pointers compatible by establishing unified concepts of what semantic entities, expressions/manifestations and item derivatives are
-  **Conclusion**: **Use** the term DL during this conference – but use it **carefully**: It will have to be replaced some day!
-  **Thank you for your patience and attention**